2.7 HAZARDS AND HAZARDOUS MATERIALS

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporation*	*Less Than Significant Impact*	*No Impact*
HAZARDS AND HAZARDOUS MATERIALS Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☒	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☒

SETTING

Materials and waste may be considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode or generate vapors when mixed with water (reactivity). The term "hazardous material" is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the

environment.[1] In some cases, past industrial or commercial uses on a site can result in spills or leaks of hazardous materials and petroleum to the ground, resulting in soil and groundwater contamination. Federal and state laws require that soils having concentrations of contaminants such as lead, gasoline, or industrial solvents that are higher than certain acceptable levels must be handled and disposed as hazardous waste during excavation, transportation, and disposal. The California Code of Regulations (CCR), Title 22, §66261.20-24 contains technical descriptions of characteristics that would cause a soil to be classified as a hazardous waste. The use of hazardous materials and disposal of hazardous wastes are subject to numerous laws and regulations at all levels of government.

PROPOSED PROJECT

The proposed project area is located in the southeast industrial area of the City and County of San Francisco. This portion of San Francisco is underlain by artificial fill materials, including debris from the 1906 earthquake, that the City placed there in the early 1900's in an effort to reclaim the bay for real estate. These artificial fills are heterogeneous collections of manmade debris, sand, clay, and mud brought up from the Bay. In some cases, these fill materials are found to contain contaminants including petroleum-based chemicals and heavy metals at concentrations that can cause human health concerns.

Types of businesses in this area include manufacturing, commercial wholesale, automobile and truck repair, and graphic design and production. These and other businesses purchase, store, use and dispose of chemicals and other materials, which could be considered hazardous depending upon the quantity and how that chemical or material is used. Petroleum and other hazardous materials have contaminated the shallow soil and groundwater at certain sites within the project area over the past years of industrial operations. The property owners, under direction of the City have cleaned up some of these sites, but others may have varying levels of soils and groundwater contamination. A common source of contaminant is petroleum leaking from underground storage tanks (USTs). Over years of use, underground storage tank systems corrode, fail and release petroleum into the subsurface soils and shallow groundwater. One particular problem with leaking USTs is that the leak can continue unnoticed for months, even years, without detection, causing considerable contamination

The proposed project area, as well as the alternatives, is almost entirely located within the area covered under the Maher Ordinance, that portion of San Francisco bayward of a historic, pre-1906 earthquake high tide line. This ordinance was developed by the City of San Francisco to address potential contamination in the artificial fill materials that are found in its reclaimed Bay margin areas. Requirements under the Maher Ordinance are designed to identify whether hazardous levels of organic or inorganic constituents exist in the artificial fills beneath a proposed development and if concentrations detected pose a threat to workers or the public. The San Francisco Department of Public Health oversees implementation of the Maher Ordinance.

[1] State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

Electric and Magnetic Field Hazard

Electricity transmission or use can generate EMF, which are caused by the presence and motion of electric charges. Electric and magnetic fields are a separate phenomena that occur naturally, caused by the earth's magnetic field and weather patterns, as well as by man's technological application of the electromagnetic field.

Electric fields are created whenever voltage exists on a conductor, and are not dependent on current. The field strength is primarily a function of the operating voltage of the line, and decreases with the distance from the source. Electric fields can be shielded by any conducting material, such as the earth, duct banks, structures, trees, etc.

Magnetic fields are present whenever current flows in a conductor, and are not dependent on voltage. The field strength also decreases with distance, but unlike electric fields, objects and materials have little shielding effect on magnetic fields. Magnetic field strength is typically measured in milliGauss (mG) units.

Over the past several years, media reports on potential EMF exposure from power lines have generated much public interest and concern. As a result of the public concerns, researchers have conducted numerous national and international sponsored studies to further understand and quantify the risks of EMF and the resultant health risks. In an effort to determine whether health standards are necessary, agencies such as the California Public Utilities Commission (CPUC), California Department of Health Services (CDHS), the Federal Environmental Protection Agency (EPA), and the National Institute of Environmental Health Sciences (NIEHS), have reviewed the research. The technical review of scientific data regarding EMF conducted by these state and federal agencies concluded that there is no basis for setting health standards (ATI Technical Memorandum, 2004). The CPUC Decision 93-11-013 issued on November 2, 1993, to address public concern about possible EMF health effects from electric utility facilities concluded the following:

> "We find that the body of scientific evidence continues to evolve. However, it is recognized that public concern and scientific uncertainty remain regarding the potential health effects of EMF exposure...We do not find it appropriate to adopt any specific numerical standard in association with EMF until we have a firm scientific basis for adopting any particular value." (ATI Technical Memorandum, 2004).

CPUC Decision 93-11-013 further directed all utilities to take a " no cost" approach to mitigating EMF exposure, and to implement low-cost options through the project certification process. Low cost measures are defined as those that will cost four percent or less of the total project cost, and will reduce the magnetic field strength by approximately 15 percent or more at the edge of the right of way.

The CPUC provides information about EMF in its environmental documents, including this Initial Study, to inform the public and decision makers; however, it does not consider EMF in the context of CEQA and environmental impact because there is no agreement among scientists that

EMF creates a potential health risk and because CEQA does not define or adopt standards for defining any potential risk from EMF.

Existing Environment

For the purposes of this EIR analysis, ESA retained Environmental Data Resources (EDR) of Southport, Connecticut to conduct a regulatory database search of sites adjacent to and in the vicinity of the project area that are listed on agency files for the documented use, storage, generation, or releases of hazardous materials or petroleum products. The database search process reviews several lists generated by federal, state, county, and/or city regulatory agencies for historically contaminated properties, businesses that use, generate, or dispose of hazardous materials or petroleum products in their operation. In addition, the EDR search reviews lists of active contaminated sites that are currently undergoing monitoring and remediation. The databases searched and reviewed by EDR for this project are listed in **Table 2.7-1**. It should be noted that potential sites of past historic hazardous materials use, storage, and/or contamination might have occurred prior to the activation of agency maintained databases.

The listed sites provided in **Table 2.7-2** are those locations that have experienced a release of hazardous materials or petroleum products that have resulted in contamination of soil and/or groundwater. The sites are those located along the proposed project route and the alternative routes where the underground cable circuit would be installed, along with sites located within 1,000 feet of the proposed and alternative routes. Those sites located along and adjacent to the routes are of greatest concern, while those located at a distance of 1,000 feet may not have an impact to the soils and groundwater beneath the route locations. A distance of 1,000 feet was chosen because some contaminants, such as methyl tertiary butyl ether (MTBE), can travel through the groundwater to impact sites at that distance.

Figure 2.7-1 shows the locations of the listed sites along the project route, alternative routes and within 1,000 feet of the routes that have experienced a release of hazardous materials or petroleum products that may result in the encounter of contaminated soil or groundwater during project construction.

The EDR search identified other sites in addition to the sites of potential concern listed in the Table 2.7-1. These other sites listed on the EDR database search report along the project route include: hazardous material/waste storage, generation and treatment facilities, underground storage tank locations, above ground storage tank locations, dry cleaning facilities, sites with waste discharge requirements, pesticide producing facilities, and facilities with air emissions. These facilities are not considered to be a concern for the proposed project because they have not been listed as having experienced any releases or contamination. These facilities operate under permits with specific requirements in accordance with applicable laws and regulations, and are typically inspected on a regular basis by the regulating agency(ies).

TABLE 2.7-1
REGULATORY AGENCY DATABASES ACCESSED FOR EDR DATABASE REVIEW

Database	Type of Record	Agency
NPL	National Priority List	EPA
CORRACTS	RCRA Corrective Actions	EPA
CERCLIS / NFRAP	Sites currently or formerly under review by the EPA	EPA
RCRIS-TSD	RCRA permitted treatment, storage, disposal facilities	EPA
RCRIS-GEN	RCRA registered small or large generators of hazardous waste	EPA
RAATS	RCRA violations/ enforcement actions	EPA
FINDS	Facility information and "pointers" to other sources that contain more detail	EPA
ERNS	Emergency Response Notification System of Spills	EPA
HMIRS	Hazardous Material Spill Incidents Reports	U.S. Department of Transportation
MINES	Mines Master Index Database	U.S. Dept. of Labor, Mine Safety and Health Administration
MLTS	List of sites which possess or use radioactive materials and are subject to NRC licensing requirements	U.S. Nuclear Regulatory Commission
TRIS/TSCA	Facilities which release toxic chemicals to air, water and land/Facilities that manufacture or import chemical substances	EPA
PADS	Generators, Transporters, Commercial Storers of PCBs	EPA
CAL-SITES	Potential or confirmed hazardous substance release sites	STATE
AWP	Known hazardous waste sites	STATE
LUST	Leaking Underground Storage Tanks	STATE
STATE LANDFILL	Permitted solid waste landfills (active, inactive and closed), incinerators or transfer stations	STATE
CA WDS	Waste Discharge System	STATE
SWF/LF	Active, closed and inactive landfills	STATE
WMUDS/SWAT	Waste management units	STATE
DEED	Sites with deed restrictions	STATE
CORTESE	State index of properties with hazardous waste	STATE
TOXIC PITS	Toxic pits cleanup facilities	STATE
CHMIRS	Reported hazardous material incidents	STATE
NOTIFY 65	Reported releases that could impact drinking water	STATE
HAZNET	Facilities that generate hazardous waste	STATE
UST/AST	Registered underground and aboveground storage tanks	STATE/COUNTY

AWP: Annual Workplan Sites
CALSITES: California Department of Toxic Substances Control Database of Hazardous Substances Releases
CERCLIS: Comprehensive Environmental Response, Compensation & Liability Information System
CHMIRS: California Hazardous Material Incident Report System
CORRACTS: Corrective Action Report System, an EPA database of corrective actions taken at a RCRA Regulated site.
CORTESE: Based on input from 14 state databases
DEED: List of Deed Restrictions
HAZNET: Hazardous Waste Information System
MLTS: Material Licensing Tracking System
NFRAP: No Further Remedial Action Planned (archived CERCLIS sites)
NOTIFY 65: Proposition 65 Records
PADS: PCB Activity Database System
RCRA: Resource Conservation and Recovery Act
SWF/LF: Solid Waste Information System
TRIS/TSCA: Toxic Chemical Release Inventory System/Toxic Substances Control Act
WMUDS/SWAT: Waste Management Database

SOURCE: EDR Report, 2004

TABLE 2.7-2
HAZARDOUS MATERIALS RELEASE SITES IDENTIFIED ALONG THE PROJECT ROUTE

Site ID – see Figure 2.7-1	Site Name	Address	Status
1	PG&E Hunters Point Power Plant	1000 Evans Avenue	Soil and groundwater were found to be contaminated with oil, asbestos, trichloroethylene, perchloroethylene, chromium, copper, lead, arsenic, zinc, polychlorinated biphenyls (PCBs), diesel and gasoline, benzene, toluene, ethylbenzene, and xylene (BTEX), solvents, dichlorodiphenyltrichloroethane (DDT), pesticides, and acids. One area of the property has been cleaned up, with low levels of petroleum products remaining in the groundwater. Other areas are undergoing the DTSC process for remediation and closure.
2	US Postal Service	1300 Evans Avenue	In 1998 two underground fuel storage tanks were removed. Post remediation monitoring is underway at the site.
3	Circosta Iron and Metal Company	1801 Evans Avenue	In 1999 one underground gasoline tank was removed. A site investigation is underway.
4	Parisian Bakeries Inc. / San Francisco French Bread	1995 Evans Avenue	This leaking underground fuel storage tank location was remediated and closed on May 29, 1998.
5	BR Funsten & Co.	2045 Evans Avenue	This leaking underground fuel storage tank location was remediated and closed on June 2, 1998.
6	Karkar Electronics, Inc./ O'Neill Inc. / Shurgrid Storage Centers	2090 Evans Avenue	This leaking underground fuel storage tank location was remediated and closed on November 14, 1995.
7	Armbee Corp.	390 Selby Street	In 1996 one underground gasoline storage tank was removed. A total of 63 cubic yards of soil were excavated and 330 gallons of groundwater were pumped out of the excavation. The excavation was backfilled with stockpiled soil and clean imported fill. The case was closed by the RWQCB on October 31, 1997
8	East Impax Inc.	500 Selby Street	In 1995 one underground gasoline storage tank was removed. A total of 30 cubic yards of soil were excavated and the excavation was backfilled with stockpiled soil and clean imported fill. The case was closed by the RWQCB on October 10, 1996.
9	Consolidated De Pue Corp, RMR Construction	101 Toland Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on July 10, 1995.

TABLE 2.7-2 (Continued)
HAZARDOUS MATERIALS RELEASE SITES IDENTIFIED ALONG THE PROJECT ROUTE

Site ID – see Figure 2.7-1	Site Name	Address	Status
10	Olympian Commercial Fueling Systems / Franco and Sons	200 Toland Street	In May 2002 an unknown amount of diesel and gasoline was spilled. The soil and groundwater were impacted. A preliminary site assessment work plan has been submitted to the RWQCB.
11	Roadway Express	201 Toland Street	In 2002 nitric acid leaked from a carton at a truck terminal. The spill was cleaned up. In 1987 an underground gasoline tank and an underground motor oil tank were removed. In 1992 an underground diesel fuel tank was removed. Soil and groundwater were impacted. Remediation is underway at this site.
12	Trail Ways Facility / Marriott Industries / AM Travel	290-300 Toland Street / 290 Maple Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on February 20, 1997.
13	Angotti & Reilly	1601 Galvez Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on July 18, 1995.
14	Green Glen Linen Inc. / Patent Scaffolding	1975 Galvez Avenue	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on July 18, 1996.
15	G Owens	2050 Galvez Avenue	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on October 10, 2000.
16	San Francisco Warehouse	175 Napoleon Street	A site investigation is underway.
17	Carpenter Rigging	222 Napoleon Street	This leaking underground fuel storage tank location was remediated and closed in 1999.
18	Habenicht & Howlett	888 Marin Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on January 29, 1992.
19	Loomis A Moed	1060 Marin Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on September 22, 1995.
20	CCSF Muni Railway-Gannex Site	1301 Cesar Chavez	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on November 17, 1994.

TABLE 2.7-2 (Continued)
HAZARDOUS MATERIALS RELEASE SITES IDENTIFIED ALONG THE PROJECT ROUTE

Site ID – see Figure 2.7-1	Site Name	Address	Status
21	San Francisco Newspaper Agency	1901 Cesar Chavez	Beginning in the late 1930s the American Smelting and Refining Company produced brass and lead ingots on this site. Federated Metals Corporation owned and operated a secondary metals plant at the site. Copper matte, crushed batteries, and lead slag were deposited on the site. In 1987 the San Francisco Newspaper Agency acquired the property. Two underground fuel (gasoline and diesel) storage tanks were removed. Sampling and analysis indicated elevated concentrations of arsenic, lead, chromium, nickel, mercury in the soil. Nickel and octylphthalate were detected in the groundwater. The old refinery building was demolished and a new building was constructed. The rest of the sit was paved with asphalt. Contaminated soils were left in place with the asphalt cap cover. A deed restriction to limit future uses of the site was recorded in October 2003.
22	F Burns Drayage	630 Army Street	Pollution characterization is underway at this site.
23	Graney Corp USA / CCSF Muni Granex	1301 Army Street	This leaking underground fuel storage tank location was remediated and closed in 1994.
24	Federated Fry Metals Corp / Federated Fry / San Francisco Newspaper Agency	1901 Army Street	Remediation is occurring at this site. The site has been capped and has a deed restriction on land use.
25	Karkar-General Signal / Grosvenor Properties	1920-2190 Army Street	A preliminary assessment was completed and the DTSC determined that no further action was necessary.
26	CCSF Purchasing / Central Shops / CCSF DPW Corp Yard / Public Works Department	2323 Army Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on January 8, 1996.
27	Muni Woods Facility	1095 Indiana Street	This is a leaking underground storage tank location where groundwater monitoring began in 1994.
28	Herman Associates	1405 Indiana Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on July 21, 1994.
29	Rent a Junker / Wong Property	1590 Indiana Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on November 22, 1994.

TABLE 2.7-2 (Continued)
HAZARDOUS MATERIALS RELEASE SITES IDENTIFIED ALONG THE PROJECT ROUTE

Site ID – see Figure 2.7-1	Site Name	Address	Status
30	Warehouse	1601 Indiana Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on September 8, 1997.
31	Exxon Svc Station	1111 Pennsylvania Avenue	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on August 9, 1991.
32	Yellow Cab Cooperative	1200 Mississippi Street	In 1999, when an underground motor oil storage tank was removed, puddle oil was observed affecting the parking lot and area beneath the tank. In a separate reported incident in 1999, waste motor oil and radiator fluids were stored in an above ground tank with a berm around it. The tank was removed but there is still product seeping through the berm into the storm drain. Remediation is underway at this site.
33	Minnesota St LLC / Warehouse / Forne National / Barbara Corneille / Allied Taxi Svc	1200 Minnesota Street	This site experienced two separate releases from underground fuel storage tanks. Both incidences were remediated and closed by the RWQCB on January 23, 1998 and October 22, 1999.
34	Commercial Property	991 Tennessee Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on June 3, 1999.
35	E Mitchell, Inc.	993 Tennessee Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on September 28, 1998.
36	Grenier Wholesale Liquor	1500 Tennessee Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on August 17, 1998.
37	Sherman Little Property	1520 Tennessee Street	The leaking underground fuel storage tank location was remediated and closed by the RWQCB on June 19, 1995.
38	PG&E Potrero Power Plant	1201 Illinois Street	A manufactured gas plant operated on the north portion of the site from 1872 until 1930. The plant was dismantled in the early 1960s. PG&E owned and operated a power plant at the site. The power plant property was sold to Southern Energy Potrero LLC in 1999. Site investigations that were performed prior and subsequent to the sale of the site found that chemicals of potential concern included metals, pesticides, PCBs, polycyclic aromatic hydrocarbons, and petroleum hydrocarbons. The RWQCB was designated as the administering agency for investigation and remediation of the site on April 17, 2001. Investigation is currently continuing at the site as to the nature and extent of contamination.

TABLE 2.7-2 (Continued)
HAZARDOUS MATERIALS RELEASE SITES IDENTIFIED ALONG THE PROJECT ROUTE

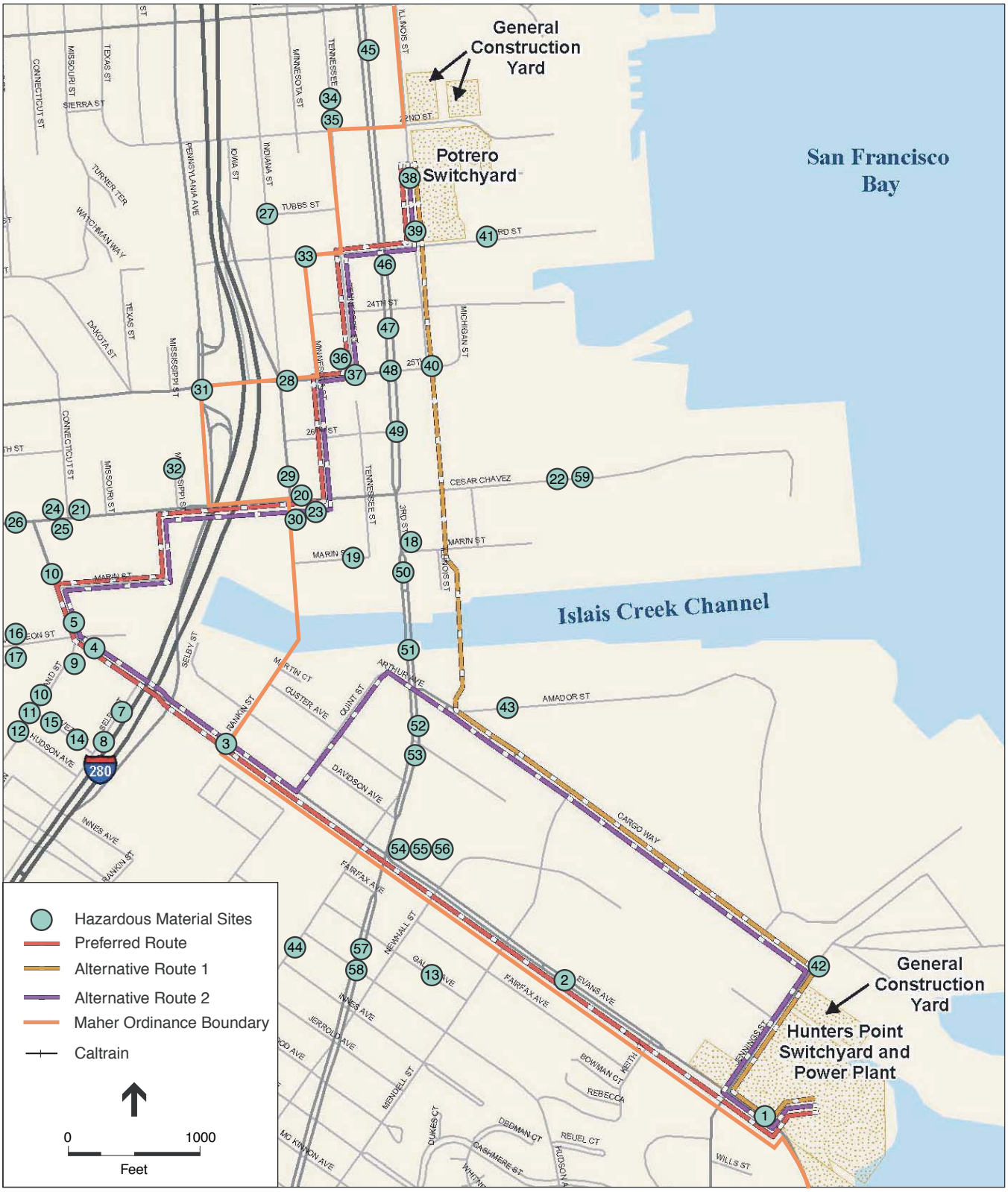
Site ID – see Figure 2.7-1	Site Name	Address	Status
39	Delano Brothers	1300 Illinois Street	The site was remediated and closed by the RWQCB on January 13, 2000.
40	Muni / Western Pacific Railroad Yard	25th / Illinois Streets	In 1987 soil and groundwater contamination was found at the site. The contaminants of concern include lead, arsenic, solvents. Post remediation monitoring has begun at this site.
41	Boland Trucking Co., Inc. / Airborne Express	435 23rd Street	Pollution characterization is underway.
42	Bonelli Enterprises / Blakeway Metal	101 Cargo Way	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on December 13, 1996.
43	Specialty Crushing	429 Amador Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on June 7, 1995.
44	The Safety House	1605 Jerrold Avenue	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on November 3, 1993.
45	Peninsula Oil Company	1634 Jerrold Avenue	A preliminary site assessment is underway.
46	CCSF SE Treatment Plant / Pump Station	750 Phelps Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on November 29, 1995.
47	Balliet Brothers Construction	2065 3rd Street	A site investigation is underway.
48	Metropolitan Elec.	2400 3rd Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on May 14, 1997.
49	Olympian Commercial Fueling System / SF Bay Tours / Rothman Schatz & Marchi	2690 3rd Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on May 10, 1995.
50	Phoebus Lighting	2800 3rd Street	This leaking underground fuel storage tank location was remediated and closed in 1999.
51	Shell Oil Co	2890 3rd Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on November 3, 1993.
52	Former Muni Site / Army Street	3000 3rd Street	This leaking underground fuel storage tank location was remediated and closed in 1998.

TABLE 2.7-2 (Continued)
HAZARDOUS MATERIALS RELEASE SITES IDENTIFIED ALONG THE PROJECT ROUTE

Site ID – see Figure 2.7-1	Site Name	Address	Status
53	TGC Truck Repair	3240 3rd Street	Pollution characterization is underway at this site.
54	San Francisco Port Authority	3301 3rd Street	A site investigation is underway.
55	India Basin Car Wash / Former Gas Station	3433 3rd Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on May 7, 1999.
56	Meye Properties / Peters Transportation	3600 3rd Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on January 7, 1997.
57	Shell Oil	3750 3rd Street	Preliminary Site Assessment is underway.
58	Unocal / Circle K	3800 3rd Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on May 7, 1999.
59	Shell / Fire Proofing System	3830 3rd Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on January 23, 1996.
60	San Francisco Truck Repair	4040 3rd Street	Preliminary Site Assessment is underway.
61	Joseph Scheid Property	4049 3rd Street	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on September 6, 1996.
62	Port of San Francisco	Pier 46B	This leaking underground fuel storage tank location was remediated and closed by the RWQCB on February 13, 1997.

RWQCB = Regional Water Quality Control Board
DTSC = Department of Toxic Substances Control

SOURCE: Environmental Data Resources (2004)



PG&E's Potrero to Hunters Point 115 kV Cable Project (A.03-12-039) / 204039 ■

SOURCE: Environmental Science Associates (2004)

Figure 2.7-1
Hazardous Material Sites

PG&E Worker Safety and Public Safety

PG&E has in place procedures controlling its construction work activities in contaminated areas. Before or during the detailed design phase of a project, PG&E generally performs subsurface soil sampling to identify areas containing contaminated soils along the project alignment. At intervals along the entire project alignment, and especially in areas of known potential contamination, PG&E extracts and test samples of soil and groundwater to identify type and concentration of contaminants. The design-phase sampling program helps identify health hazards that may be encountered during construction, and is used to develop appropriate construction practices and procedures as a part of a Health and Safety Plan and Hazardous Substance Control and Emergency Response Plan. These plans are developed to ensure worker safety as well as to reduce the potential for discharges of pollutants from the contaminated soils. All soil and groundwater sampling follows proper testing and handling protocols for hazardous waste and water collection and decontamination procedures.

In addition to the pre-project soil and groundwater testing, PG&E incorporates standard procedures for work in contaminated soils into proposed project construction methods,. These procedures are incorporated to ensure worker safety as well as protect the environment during construction in contaminated areas. Specific construction procedures are developed after identifying contaminants in a project area and may include a Worker Training Program, use of personal protective equipment and clothing, containment and testing of potentially contaminated soils and water, and use of a qualified observer, as well as implementing construction best management practices to prevent accidental transport of contaminants outside the construction area.

To maintain a safe, orderly, and efficient work site, appropriate barriers and warnings are generally located to prevent any pedestrians from crossing into the work area.

Emergency Response / Evacuation Plan

San Francisco has an Office of Emergency Services that coordinates and manages resources and personnel during emergencies. As part of this coordination effort, this office follows an Emergency Operations Plan, which details communication, emergency command and control centers, and other related operations. The Emergency Response District within the project area is associated with the San Francisco Fire Department Battalion Station at 2245 Jerrold Street. There are four corresponding staging areas associated with this district. Only one of these, located at the Webster (Daniel) School, is within 0.5 mile of the project area (Essex Environmental, 2003).

ALTERNATIVE 1

Alternative 1 is the shortest and most direct route and therefore has fewer identified hazardous materials release sites along the route. However, the alternative is still located within an area covered under the Maher Ordinance, with the potential to encounter contaminated soils and groundwater beneath this route. The EMF levels and concerns would remain the same as those of the proposed project.

ALTERNATIVE 2

Alternative Route 2 has a similar amount of identified hazardous materials release sites along the route as the preferred alternative. This alternative is also located within an area covered under the Maher Ordinance with the potential to encounter contaminated soils and groundwater beneath this route. The EMF levels and concerns would remain the same as those of the proposed project.

ALTERNATIVE 3

The project setting for Alternative 3 is the same as under Alternative 1.

NO PROJECT ALTERNATIVE

The setting for the No Project Alternative is the same as current conditions since construction of a 2.5 mile cable project would not occur.

REGULATORY CONTEXT

Federal

The United States Environmental Protection Agency (EPA) is the lead agency responsible for enforcing federal regulations that affect public health or the environment. The primary federal laws and regulations include the *Resource Conservation and Recovery Act* of 1976 (RCRA) and the *Hazardous and Solid Waste Amendments* enacted in 1984; the *Comprehensive Environmental Response, Compensation and Liability Act* of 1980 (CERCLA); and the *Superfund Act and Reauthorization Act* of 1986 (SARA). Federal statutes pertaining to hazardous materials and wastes are contained in the *Code of Federal Regulations* (CFR), Title 40. The Federal Occupational Safety and Health Administration (Fed/OSHA) is the agency responsible for ensuring worker safety. The Federal Department of Transportation regulates the interstate transport of hazardous materials and wastes through implementation of the *Hazardous Materials Transportation Act*.

The following represent federal laws and guidelines governing hazardous substances:

- Pollution Prevention Act (42 U.S.C. § 13101 et seq. / 40 CFR)
- Clean Water Act (33 U.S.C. § 1251 et seq. / 40 CFR)
- Oil Pollution Act (33 U.S.C. § 2701-2761 / 30, 33, 40, 46, 49 CFR)
- Clean Air Act (42 U.S.C. § 7401 et seq. / 40 CFR)
- Occupational Safety and Health Act (29 U.S.C. § 651 et seq. / 29 CFR)
- Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. § 136 et seq. / 40 CFR)
- Comprehensive Environmental Response Compensation and Liability Act (42 U.S.C. § 9601 et seq. / 29, 40 CFR)
- Superfund Amendments and Reauthorization Act Title III (42 U.S.C. § 9601 et seq. / 29, 40 CFR)

- Resource Conservation and Recovery Act (42 U.S.C. § 6901 et seq. / 40 CFR)
- Safe Drinking Water Act (42 U.S.C. § 300f et seq. / 40 CFR)
- Toxic Substances Control Act (15 U.S.C. § 2601 et seq. / 40 CFR)

State

California hazardous materials laws incorporate federal standards, but are often more strict than federal laws. The primary applicable state laws include the *California Hazardous Waste Control Law* (HWCL), the State equivalent of RCRA, and the *California Hazardous Substance Account Act*, the State equivalent of CERCLA. State hazardous materials and waste laws are contained in the *California Code of Regulations* (CCR) Titles 22 and 26. State underground storage tank (UST) laws and regulations are contained in the CCR Title 23. The California Safety and Health Administration (Cal/OSHA) is the state agency responsible for assuring worker safety in the handling and use of chemicals in the workplace. Applicable State laws include the following:

- Porter Cologne Water Quality Control Act (California Water Code § 13000-14076 / 23 CCR)
- California Accidental Release Prevention Law (California Health and Safety Code § 25531 et seq. / 19 CCR)
- California Building Code (California Health and Safety Code § 18901 et seq. / 24 CCR)
- California Fire Code (California Health and Safety Code § 13000 et seq. / 19 CCR)
- California Occupational Safety and Health Act (California Labor Code § 6300-6718 / 8 CCR)
- Hazardous Materials Handling and Emergency Response "Waters Bill" (California Health and Safety Code § 25500 et seq. / 19 CCR)
- Hazardous Waste Control Law (HWCL) (California Health and Safety Code § 25100 et seq. / 22 CCR)
- Carpenter-Presley-Tanner Hazardous Substance Account Act "State Superfund" (California Health and Safety Code § 25300 et seq. / California Revenue and Tax Code § 43001 et seq.)
- Hazardous Substances Act (California Health and Safety Code § 108100 et seq.)
- Safe Drinking Water and Toxic Enforcement Act "Proposition 65" (California Health and Safety Code §§ 25180.7, 25189.5, 25192, 25249.5-25249.13 / 8, 22 CCR)
- California Air Quality Laws (California Health and Safety Code § 39000 et seq. / 17 CCR)
- Aboveground Petroleum Storage Act (California Health and Safety Code § 25270 et seq.)
- Pesticide Contamination Prevention Act (California Food and Agriculture Code § 13141 et seq. / 3 CCR)
- Underground Storage Tank Law "Sher Bill" (California Health and Safety Code § 25280 et seq. / 23 CCR)

The California Environmental Protection Agency (Cal/EPA) and the California Office of Emergency Services (OES) establish rules governing the use of hazardous substances. The State Water Resources Control Board (SWRCB) has primary responsibility to protect water quality and supply.

The Cal/EPA was created in 1991 to better coordinate state environmental programs, reduce administrative duplication, and address the greatest environmental and health risks. The Cal/EPA unifies the state's environmental authority under a single accountable, Cabinet-level agency. The Secretary for Environmental Protection oversees the following agencies: Air Resources Board, Integrated Waste Management Board, Department of Pesticide Regulation, State Water Resources Control Board, Department of Toxic Substances Control, and Office of Environmental Health Hazard Assessment. Within Cal/EPA, the Department of Toxic Substances Control has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the generation, transport and disposal of hazardous substances under the authority of the HWCL.

The San Francisco RWQCB is responsible for protecting the beneficial uses of surface water and groundwater resources in the San Francisco Bay Area. The RWQCB adopted a Water Quality Control Plan (Basin Plan) in June 1995, amended in April 2000, which sets forth implementation policies, goals, and water management practices in accordance with the Porter-Cologne Water Quality Control Act. The Basin Plan establishes both numerical and narrative standards and objectives for water quality specific to the Bay Area aimed at protecting aquatic resources. Discharges to surface waters in the region are subject to regulatory standards set forth in the Basin Plan. Although the project area is not located within an area identified as a major groundwater basin, and groundwater is not used as a municipal or domestic water supply, the RWQCB enforces the provisions of the state statues that protect groundwater.

The Bay Area Air Quality Management District (BAAQMD) may also impose specific requirements on remediation and other activities to protect ambient air quality from dust or other airborne contaminants. Soils having concentrations of contaminants higher than certain acceptable levels must be handled and disposed as hazardous waste when excavated. Title 22 CCR §66261.20-24 contains technical descriptions of characteristics that would cause a soil to be classified as a hazardous waste.

Local

The Hazardous Materials Unified Program Agency, part of the Environmental Health Section of the San Francisco Department of Public Health, enforces the Hazardous Materials and Hazardous Waste Ordinances of San Francisco, as well as oversees the cleanup of sites contaminated by leaky underground petroleum storage tanks. UST owners who wish to remove their tanks are required to obtain agency approval. If contamination is encountered during tank removal, the cleanup is overseen by the Local Oversight Program within the Hazardous Materials Unified Program Agency.

The San Francisco Department of Public Works, Bureau of Environmental Regulations and Management (BERM), regulates the discharge of industrial wastewater, including dewatering effluent, to the combined sewer system under the Industrial Waste Ordinance and Department of Public Works Order Number 158170. Discharges resulting from the dewatering of construction sites, or any other activities that generate wastewater other than that from routine commercial and industrial processes, must comply with the Requirements for Batch Wastewater Discharges issued

by BERM. Requirements specify analytical requirements and discharge limits for organic and inorganic constituents in discharges. Applications for permits to perform batch wastewater discharges must be submitted to the BERM for approval. In areas along the alignment where groundwater dewatering would be necessary (if any), permits to perform batch wastewater discharges would be required.

There are local ordinances that meet or exceed state and federal requirements for site investigations and the storage of hazardous substances. These include San Francisco Public Works Code, Article 20, §1000 *et seq.* (the "Maher Ordinance"); San Francisco Municipal Code, Article 21 (the Hazardous Materials Ordinance); San Francisco Municipal Code, Article 22 (the Hazardous Waste Ordinance); and San Francisco Health Code, Article 22A (Analyzing Soils for Hazardous Waste). The relevant portions of Articles 20 and 22A (which effectively implement the Maher Ordinance) come into play at the time of application for Building Permit(s).

Maher Ordinance

The 1986 Maher Ordinance as amended requires an investigation of hazardous materials in soil at certain construction sites as a prerequisite for any building permit. The Maher Area encompasses the area of San Francisco bayward of a historic, pre-1906 earthquake high tide line. As discussed above, this area was largely the part of San Francisco created by landfill material where past industrial land uses and debris fill associated with the 1906 earthquake and Bay reclamation often left hazardous residue in local soils and groundwater. The Maher Ordinance was developed to protect workers and citizens from exposure to potential hazardous waste during project construction.

The Maher Ordinance requires that, if more than 50 cubic yards of soil are to be disturbed and the project is on fill, or is at a location designated for investigation by the director of the Department of Public Health, applicants for building permits must, among other things, prepare a site history and analyze the site's soil for hazardous materials.

Under the Maher Ordinance as implemented under the San Francisco Health Code, Article 22A and San Francisco Public Works Code, Article 20, the following is required:

- Provide to the Director of the San Francisco Department of Public Health a site history of the property prepared by an individual with the requisite training and experience.
- Soil sampling and analysis to determine the presence of hazardous wastes in the soil, with analysis including inorganic persistent and bioaccumulative toxic substances, volatile organic toxic pollutants, PCBs, pH levels, cyanides, methane and other flammable gases, total petroleum hydrocarbons, semi-volatile compounds, hazardous wastes, and any other hazardous wastes that may be present on the property.
- Soil analysis report prepared and submitted to the Director of the San Francisco Department of Public Health, the California Department of Toxic Substances Control, the San Francisco Bay Regional Water Quality Control Board, and any other required agencies.

- If the soil sampling and analysis report or site history indicates that the property is listed on the National Priorities List or the list of California Hazardous Substances Account Act release sites, a certification of verification from the appropriate federal or state agency that site mitigation has been completed shall be provided to the Director of the San Francisco Department of Public Health.

- If the soil sampling and analysis report indicates that hazardous wastes are present in the soil, a site mitigation report shall be prepared and submitted to the Director of the San Francisco Department of Public Health.

Hazardous Materials Ordinance

The Hazardous Materials Ordinance provides for safe handling of hazardous materials in San Francisco. Any person or business that handles, sells, stores, or otherwise uses hazardous materials in quantities exceeding specified thresholds and for specified periods, is required by Article 21 to register the hazardous materials with the Department of Public Health and prepare and implement certain plans and reporting procedures.

Hazardous Waste Ordinance

The Hazardous Waste Ordinance provides for safe handling of hazardous wastes in San Francisco. The ordinance incorporates the state requirements for hazardous waste described in § 6.5 (Hazardous Waste Management) of the California Health and Safety Code as well as the accompanying regulations found in CCR Title 22. Wastes generated by lead-based paint and asbestos removal, in addition to other project activities, may be subject to this ordinance.

San Francisco Building Code – Chapter 36

Construction and renovation activities must comply with Chapter 36 of the San Francisco Building Code, Work Practices for Exterior Lead-Based Paint. If any work as part of the project would disturb or remove lead paint on the exterior of a building constructed prior to December 31, 1978, Chapter 36 requires specific notification and work standards, and identifies prohibited work methods and penalties.

IMPACTS DISCUSSION OF HAZARDS AND HAZARDOUS MATERIALS

METHODOLOGY AND SIGNIFICANCE CRITERIA

The analyses of the potential intensity of impacts from hazards and hazardous materials included a review of the environmental database report for the project area. Additional information that characterizes the area, such as reports published by agencies for the region or project area were used as applicable. Where possible, mapped locations showing specific locations of concern were compared between alternative locations. The analyses also included staff observations in the field and from within each of the alternative locations. Sampling and analytical activities were not conducted by a team member to determine the presence of hazardous materials; instead the analysis relied on existing information and databases to characterize the project area. To determine the level of significance of the impacts anticipated from the proposed project, the

project's effects were evaluated as provided under the revised CEQA guidelines. These guidelines are summarized in the checklist provided at the beginning of this section.

PROPOSED PROJECT

The proposed project and the alternatives would not require long-term use, storage, treatment, disposal, or transport of significant quantities of hazardous materials.

Materials proposed for use in conduit could include polyethylene and polyvinyl chloride (PVC). Polyethylene is a common inert plastic used to fabricate soda bottles (PET bottles) and children's toys and does not pose an environmental hazard. Polyvinyl chloride is also an inert material commonly used in the residential community for sprinkler piping. While vinyl chloride, a known toxic substance, is used in the production of PVC piping, once fabricated, PVC has no vapor pressure and does not pose an immediate environmental hazard. Degradation of some PVC products (such as window blinds) has been shown to release lead dust and chlorine to the environment over time, given exposure to sunlight. However, pipelines would be buried in over three feet of soil and would not be exposed to environmental conditions that would result in substantial degradation.

There is the potential for exposure of the public to EMF from the underground transmission line. For the proposed single circuit underground transmission line, the calculated magnetic field strength varies from approximately 170 mG directly above the cables, diminishing to approximately 20 mG at 20 feet from the line (ATI Technical Memorandum, 2004). For the proposed project, most of the underground duct bank would be within roadways. The exposure to the driving public therefore would vary from 170 mG to 20 mG or less depending on distance to the cable. On sidewalks, the pedestrian exposure typically would be 20 mG or less, as long as the cable is 20 feet from the edge of the sidewalk. However, where the cable is perpendicular to and beneath the sidewalk the local exposure to pedestrians may be as high as 170 mG.

The proposed project impacts include the potential for an accidental release of hazardous materials stored in staging areas and used during the construction of the proposed project that could enter nearby waterways, adjacent lands or public roadways. There is the potential for exposure to contaminated soil and groundwater from existing and unidentified contamination that might be encountered during excavation and/or dewatering activities. Implementation of the following mitigation measures would reduce all impacts to a level of insignificance.

> **Mitigation Measure HAZ-1: The project applicant shall ensure, through the enforcement of contractual obligations, that all contractors transport, store, and handle construction-related hazardous materials in a manner consistent with relevant regulations and guidelines, including those recommended and enforced by the U.S. Department of Transportation, RWQCB, San Francisco Department of Public Health, and the local fire department. The project applicant shall also ensure that all contractors control the source of any leak and immediately contain any spill utilizing appropriate spill containment and countermeasures. If required by any regulatory agency, contaminated media shall be collected and disposed of at an off-site facility approved to accept such media. In addition, all precautions required by the RWQCB**

issued National Pollution Discharge Elimination System (NPDES) construction activity storm water permits shall be taken to ensure that no hazardous materials enter any storm drains or nearby waterways.

Mitigation Measure HAZ-2: There are requirements for development within the area regulated under the Maher Ordinance area including soil sampling and analysis for specific inorganic and organic chemicals. PG&E has also developed specific protocol for subsurface soil sampling and testing for contaminated soils during construction activities. In addition to the requirements of the Maher Ordinance and the PG&E protocols, the following mitigation measures would ensure that impacts regarding the potential to expose the public, workers and the environment to contaminated soil, surface, and/or groundwater along the power line route would remain less-than-significant:

- ***Hazardous Substance Control and Emergency Response Plan*** **– The applicant shall prepare a Hazardous Substance Control and Emergency Response Plan (the Plan) for the project and implemented during construction. It shall prescribe hazardous material handling procedures to reduce the potential for a spill during construction, or exposure of the workers or public to hazardous materials. The plan shall also include a discussion of appropriate response actions in the event that hazardous materials are released or encountered during excavation activities. In addition, the plan shall include proposed methodologies for tracking and managing excavation materials, including asphalt, concrete, debris, and soil. Details on dust control, runoff control, tarping, and air monitoring (of the trench and temporary excavated materials storage areas) shall be included in the plan. The plan shall be submitted to the Hazardous Material Unified Program Agency, or another appropriate oversight agency, for approval prior to initiating excavation activities.**

- ***Health and Safety Plan*** **– The applicant shall prepare and implement a Health and Safety Plan to ensure the health and safety of construction workers and the public during project construction. The plan shall include information on the appropriate personal protective equipment to be used during excavation activities, and material loading, testing, and disposal.**

- ***Stormwater Pollution Prevention Plan*** **– The applicant shall prepare a Stormwater Pollution Prevention Plan (SWPPP) for the project to be implemented during construction. The SWPPP shall contain information on engineering controls to minimize turbid stormwater runoff or the acceleration of sedimentation rates.**

- **Environmental Training Program – The applicant shall ensure that an environmental training program be established and delivered to communicate environmental concerns and appropriate work practices to all construction field personnel. The training program shall emphasize site-specific physical conditions to improve hazard prevention, and shall include a review of the Health and Safety Plan, Hazardous Substance Control and Emergency Response Plan, and the SWPPP.**

- ***Emergency Spill Supplies and Equipment*** **– The applicant shall ensure that oil-absorbent material, tarps, and storage drums would be used to contain and control any minor releases. Emergency-spill supplies and equipment shall be**

kept adjacent to all areas of work and in staging areas, and shall be clearly marked. Detailed information for responding to accidental spills and for handling any resulting hazardous materials shall be provided in the project's Hazardous Substance Control and Emergency Response Plan, which shall be implemented during construction.

- ***Environmental Field Monitoring* – The applicant shall ensure that a trained environmental monitor be present during all project excavation activities. The monitor shall be equipped with the appropriate equipment to monitor air quality in excavation trenches, and to observe excavation spoils for the presence of potentially hazardous materials. The applicant shall ensure that the monitor has the experience and authority to select the appropriate personal protective equipment, determine appropriate soil and groundwater handling and disposal requirements, modify work activities, or stop work at any time to ensure worker and public health and safety.**

- ***Storage, Testing, and Disposal of Excavated Materials and Groundwater* – The applicant shall ensure that excavated materials are separated into asphalt, concrete, debris, and soil, and hauled to one of the excavated materials storage areas, located near the switchyards. Each material shall be placed on plastic sheeting, moistened to control dust, and covered in a manner to prevent runoff of turbid or contaminated stormwater. Analyses to determine the presence of hazardous materials in material to be disposed of shall be performed as required by the receiving landfill. Laboratory test reports shall be used to determine the proper handling, transport, and disposal methods. If groundwater is encountered in the excavation trenches, it shall be contained in Baker tanks and tested for turbidity and potential contaminants prior to being disposed of in accordance with local regulations. Non-contaminated groundwater shall be released to the stormwater conveyance system (with prior approval).**

Mitigation Measure HAZ-3: The project applicant shall incorporate EMF reduction measures in accordance with CPUC Decision 93-11-013, which includes the following measures:

- **Increased distance from conductors and equipment**
- **Reduced conductor spacing**
- **Minimize current**
- **Optimize phase configuration**
- **Maximize the distance between above ground conductors at the substations and the public right of way.**
- **Maximize the distance between the underground cables and nearby sidewalks and buildings.**
- **Increase the burial depth of the duct bank.**
- **Increase the distance between overhead conductors and the ground.**
- **Reduce current in conductors, if possible.**

The project applicant shall submit a final field management plan to the CPUC for review at least 60 days prior to construction. This plan shall, at a minimum, include the following:

- **A description of the project.**
- **A description of the surrounding land uses considering priority criteria classifications per PG&E guidelines.**
- **An assessment of total EMF exposure levels at the substation fence lines.**
- **No-cost options to be implemented.**
- **Priority areas where low-cost measures are to be applied.**
- **Measures considered for magnetic field reduction, percent reduction, and cost.**
- **Identification of mitigation options selected and how areas were treated equivalently, as well as an explanation of which low-cost measures cannot be applied due to cost, percent reduction, equivalence, or other reason.**

ALTERNATIVE 1

The magnitude of EMF exposure for Alternative 1 is essentially the same as the proposed project. This alternative is the shortest route; however, the calculated magnetic field strength would be the same as the proposed project in that it would vary from approximately 170 mG directly above the cables, diminishing to approximately 20 mG at 20 feet from the line (ATI Technical Memorandum, 2004). For this alternative, most of the underground duct bank would be within roadways. The exposure to the driving public therefore would vary from 170 mG to 20 mG or less depending on distance to the cable. On sidewalks, the pedestrian exposure typically would be 20 mG or less, as long as the cable is 20 feet from the edge of the sidewalk. However, where the cable is perpendicular to and beneath the sidewalk the local exposure to pedestrians may be as high as 170 mG.

Alternative 1 impacts include the potential for an accidental release of hazardous materials stored in staging areas and used during the construction of the proposed project that could enter nearby waterways, adjacent lands or public roadways. There is the potential for exposure to contaminated soil and groundwater from existing and unidentified contamination that might be encountered during excavation and/or dewatering activities. All impacts would be mitigated to a level of insignificance with implementation of Mitigation Measures HAZ-1, HAZ-2, and HAZ-3.

ALTERNATIVE 2

The magnitude of EMF exposure for Alternative 2 is essentially the same as the proposed project. However, the total EMF exposure to the public may be greatest for this alternative since it is the longest route. The magnitude of EMF exposure for Alternative 2 is essentially the same and the proposed project. The calculated magnetic field strength would be the same as the proposed project in that it would vary from approximately 170 mG directly above the cables, diminishing to approximately 20 mG at 20 feet from the line (ATI Technical Memorandum, 2004). For this alternative, most of the underground duct bank would be within roadways. The exposure to the

driving public therefore would vary from 170 mG to 20 mG or less depending on distance to the cable. On sidewalks, the pedestrian exposure typically would be 20 mG or less, as long as the cable is 20 feet from the edge of the sidewalk. However, where the cable is perpendicular to and beneath the sidewalk the local exposure to pedestrians may be as high as 170 mG.

Alternative 2 impacts include the potential for an accidental release of hazardous materials stored in staging areas and used during the construction of the proposed project that could enter nearby waterways, adjacent lands or public roadways. There is the potential for exposure to contaminated soil and groundwater from existing and unidentified contamination that might be encountered during excavation and/or dewatering activities. All impacts would be mitigated to a level of insignificance with implementation of mitigation measures HAZ-1, HAZ-2, and HAZ-3.

ALTERNATIVE 3

Implementation of Alternative 3 would result in impacts similar to those discussed under Alternative 1. All impacts would be mitigated to a level of insignificance with implementation of mitigation measures HAZ-1, HAZ-2, and HAZ-3.

NO PROJECT ALTERNATIVE

The No Project Alternative would avoid all potential impacts related to hazards and hazardous materials associated with construction and operations of the proposed project.

CHECKLIST IMPACT CONCLUSIONS

a) During grading and construction activities it is anticipated that limited quantities of miscellaneous hazardous substances, such as gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc. could be brought into staging areas. Temporary bulk above-ground storage tanks and 55-gallon drums could be used by contractors for fueling and maintenance purposes. Contractors could also use sheds/trailers as temporary storage areas for these substances. As with any liquid and solid, during handling and transfer from one container to another, the potential for an accidental release exists. Depending on the relative hazard of the material, if a spill were to occur of significant quantity, the accidental release could pose a hazard to construction workers, the public, as well as the environment. Implementation of Mitigation Measure HAZ-1 would reduce this impact to an insignificant level.

b,c) Encountering contaminated soil, surface water, and groundwater without taking proper precautions could result in the exposure of construction workers and consequently result in associated significant adverse human health and environmental impacts. As discussed in the setting section, the potential for encountering contaminated soil and groundwater could come from sites located adjacent to and within the vicinity of the proposed project and alternative routes where the underground cable circuit would be installed that have experienced a release of hazardous materials or petroleum products (refer to Table 2.7-2 and Figure 2.7-1).

Fill material located in the project area is known to be contaminated due in part to results from past implementation of the Maher Ordinance requirements which includes analysis of soil samples for specific inorganic and organic chemicals for development projects. Approximately 2.5 miles of new underground conduit would be constructed beneath Illinois Street, 23rd Street, Tennessee Street, 25th Street, Minnesota Street, Cesar Chavez Street, Marin Street, and Evans Avenue; resulting in approximately 10,000 cubic yards of excavated material. If suitable, most of this material would be used as thermal backfill with the remainder requiring analytical testing, transportation, storage, and disposal. Additionally, a few hundred cubic yards of soil, which would be managed separately, would be excavated in the Hunters Point Switchyard and the Potrero Switchyard for conduit installation and foundation construction.

For the proposed single circuit underground transmission line, the calculated magnetic field strength varies from approximately 170 mG directly above the cables, diminishing to approximately 20 mG at 20 feet from the line (ATI Technical Memorandum, 2004). This distribution appears reasonable for an underground cable, with a high concentration of field strength directly above the cable since it is only a few feet from the ground surface, and with a rapid reduction of strength with distance due to the close spacing of the cables. This results in a greatly reduced width of exposure compared to an overhead line.

The underground cables would transition to above ground structures at the existing substations at each end of the project route. The field strength of the above ground conductors at the substation fence line has not been provided. In addition, the existing EMF levels induced by other utilities in the project vicinity are not known.

For the proposed project, most of the underground duct bank would be within roadways. The exposure to the driving public therefore would vary from 170 mG to 20 mG or less depending on distance to the cable. On sidewalks, the pedestrian exposure typically would be 20 mG or less, as long as the cable is 20 feet from the edge of the sidewalk. However, where the cable is perpendicular to and beneath the sidewalk the local exposure to pedestrians may be as high as 170 mG.

There are three schools located within one-half mile of the project site, the Malcolm X Academy Elementary School (1,500 feet southwest), the Davis Middle School (1,700 feet southwest), and the Webster Elementary School (2,600 feet west). The California Department of Education (CDE) has established limits for the location of school sites near high-voltage power transmission lines. The electric and magnetic field concentrations from the underground transmission lines would not impact the nearby schools due to their distances from the proposed routes. Since significant quantities of volatile hazardous materials would not be used during construction, there would be no impact to these schools. If volatile organic compounds are encountered in excavated materials, they would be managed to minimize releases to the environment. The impacts from dust generated as a result of construction activities are discussed in Section 2.03, Air Quality.

Implementation of Mitigation Measures HAZ-2 and HAZ-3 would reduce impacts to a level of insignificance.

d) As discussed above, a majority of the proposed project site and the alternatives are located within an area of San Francisco that is considered to be contaminated from fill material placed in the bay area to expand developable acreage. The fill material is known to be contaminated due to past construction projects. In addition, several contaminated sites have been identified along the pipeline route. Refer to item b) above.

e) There are no public airports located within 2 miles of the project area or alternatives. The proposed project would involve the installation of underground electric cable and conduit. There would be no structures that would impair airport operations. There would be no airport safety hazards associated with project construction or operation.

f) There are no known private airports located within 2 miles of the project area or alternatives. Accordingly, there should be no airport safety hazards associated with project construction or operation.

g) The proposed project and alternatives would involve the operation of heavy machinery during installation activities, and emergency response times may be affected during that time. Emergency access would be regulated as a condition of road encroachment permits by the applicable regulatory agency. Also, as discussed in Section 2.15, a traffic management plan shall be prepared as a part of the mitigation strategy of the proposed project and alternatives to reduce impacts on traffic and emergency response vehicles and plans to a less-than-significant level.

h) The proposed project and alternatives would not be constructed near wildlands, so there would be no potential to expose people or structures to wildland fires.

REFERENCES – Hazards and Hazardous Materials

ATI Architects and Engineers Technical Memorandum. Draft Electric and Magnetic Field Hazard Technical Memorandum. PG&E Potrero to Hunters Point 115 kV Cable Project. Document Number E2105-MEM-002-RV1. June 25, 2004.

Environmental Data Resources. Database Search Report. PG&E Potrero to Hunters Pt. 115 kV Cable Project, San Francisco, CA. Inquiry Number 01211725.1r. June 15, 2004.

Essex Environmental, 2003. PG&E Potrero to Hunters Point 115 kV Cable Project. Proponent's Environmental Assessment. Essex Environmental. December 2003.